THE PURE ROTATIONAL SPECTRUM OF PbI FROM BROADBAND ROTATIONAL SPECTROSCOPY

DANIEL P. ZALESKI, *School of Chemistry, Newcastle University, Newcastle-upon-Tyne, United Kingdom*; HANSJOCHEN KÖCKERT, *School of Chemistry, Newcastle University, Newcastle upon Tyne, United Kingdom*; SUSANNA LOUISE STEPHENS, NICK WALKER, *School of Chemistry, Newcastle University, Newcastle-upon-Tyne, United Kingdom*; LISA-MARIA DICKENS, COREY EVANS, *Department of Chemistry, University of Leicester, Leicester, United Kingdom*.

The pure rotational spectrum of the open-shelled diatomic PbI is presented. The deep averaged broadband spectrum has allowed for characterization of several rotational spectra belonging to various lead isotopologues, as well as multiple vibrationally excited states of PbI. Being an opened-shelled diatomic, Λ-type doubling was observed. Analysis of the diatomic's spectral constants and potential energy surface will be described. These results will also be compared to early results from SnI.